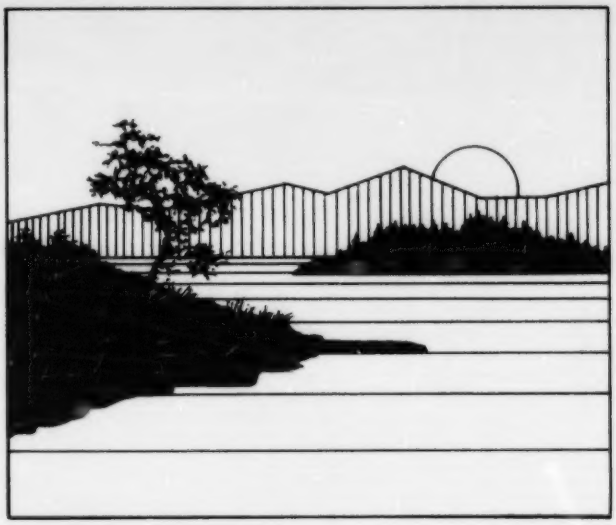

The Planning and Regulation of Aquaculture in the Islands Trust Area

Islands Trust Position Paper No. 4

Province of
British Columbia
Ministry of
Municipal Affairs

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POSITION PAPER

ON

PLANNING AND REGULATION

OF AQUACULTURE IN THE

ISLANDS TRUST AREA

Islands Trust

Ministry of Municipal Affairs

September, 1987

Position Paper #4

NOTE TO USERS

This is one of a series of position papers produced by the Islands Trust. These papers have received the endorsement of the Islands Trust Council (an informal committee consisting of the 26 elected trustees of the Islands Trust). They describe the recommended approaches of the Trust Council regarding a variety of land use and development issues, but have not been adopted as policy by the individual local trust committees.

Under the *Islands Trust Act*, each local trust committee has the authority to develop land use regulations appropriate for their area. The position papers are used by the local trust committees to assist them in developing appropriate and effective plans and regulations, and in working with other government agencies to resolve land use and development issues.

A list of the position papers produced to date by the Islands Trust is provided below.

No. 1 - The Object of the Islands Trust: Renewing the Consensus

No. 2 - The Regulation of Home Occupations in the Islands Trust Area

No. 3 - The Regulations of Bed and Breakfast Businesses in the Islands Trust Area.

No. 4 - The Planning and Regulation of Aquaculture in the Islands Trust Area.

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INTRODUCTION

In recent years, there has been an increase in the number of aquaculture proposals in coastal locations in the Islands Trust area. Public concern has arisen regarding such matters as impacts on the marine environment and existing uses and property owners on the islands. Some local trust committees and island residents have been concerned that plans and bylaws did not adequately address such concerns or the needs of rapidly changing and expanding industry. The Islands Trust Council, therefore, requested the preparation of a position paper to assist local trust committees in reviewing and, if necessary, amending plans and bylaws to effectively plan for and regulate aquaculture in coastal areas.

The position paper provides recommendations, but does not represent the policy of any individual local trust committee. The *Islands Trust Act* provides that each local trust committee has the authority to develop land use plans and regulations appropriate for their area.

I. BACKGROUND

Aquaculture is a general term referring to a variety of activities associated with food production in water. Section 1 of the British Columbia *Fisheries Act* provides the following definition:

> "aquaculture means the growing and cultivation of aquatic plants or fish, for commercial purposes, in any water environment or in man made containers of water and includes the growing and cultivation of shellfish on in or under the foreshore or in water."

The term mariculture is not defined in the *Fisheries Act*, but is generally understood to refer to food production in salt water. Mariculture activities include salmon farms, the raising of shellfish (such as oysters), the growing of marine plants and polyculture (or joint rearing of two or more species). Any individual mariculture operation may include hatcheries, feedmills, grow-out and processing. These activities may take place at one site or separate sites, on the uplands, foreshore, or a combination of the two.

The Islands Trust recognizes that aquaculture provides economic benefits to the Province and creates job opportunities for island communities. However, the rapid growth of the aquaculture industry, particularly salmon farms, in coastal British Columbia and the increase in developments and proposals in the Islands Trust area in recent years has generated considerable public concern.

Residents and visitors on the islands have concerns about:

- possible harmful impacts of aquaculture, particularly salmon farms, on the marine environment and the inadequacies and reliability of technical data on impacts of these developments,
- real or perceived conflicts between the current uses of the sea, foreshore and adjacent uplands and aquaculture developments,
- the effects of salmon farms and associated operations on property values, visual aesthetics, and peace and quiet,
- aquaculture developments may be established in areas of prime importance to traditional economic activities on the islands such as commercial fishing, log storage and dumping, and tourism.

While the Islands Trust is not opposed to aquaculture development, it does support a cautious approach to management of future growth in this relatively new industry within the Trust area, in order that public concerns and the needs of the aquaculture industry can both be addressed. The Trust does, however, oppose aquaculture developments which proceed in a manner that is not consistent with

the "preserve and protect" mandate of the Trust. The Islands Trust is aware that scientific studies are still being conducted to determine the nature and extent of environmental impacts of salmon farms, in particular, on the foreshore e.g. dissolved nutrients from excretions (NH_4, urea phosphate), solid wastes (oxygen consumption, etc.) and disease transmission to wild stocks. The Islands Trust is not aware at this time of any published reports which address these concerns. Until better information is available, therefore, the Trust will maintain its cautious approach to aquaculture, and especially salmon farm developments.

The next sections outline objectives and proposed regulatory approaches for management of aquaculture developments in coastal areas. (This paper does not deal with planning and regulations for freshwater aquaculture).

II. OBJECTIVES

Any approach to the regulation and management of aquaculture operations should be consistent with the policies of the Islands Trust and the appropriate individual local trust committees. The following is a useful guide in this respect:

- "The Policy of the Islands Trust" (1983);
- "The Object of the Islands Trust": Renewing the Consensus" (1986);
- individual island Official Community Plans (including Rural Land Use Bylaws);
- specific policies adopted by the Islands Trust Council (which can be obtained from the minutes of Council).

The Policy of the Islands Trust sets out the following goals:

1. To preserve and protect the land, water, air and life they support.

2. To preserve areas of natural beauty and areas of sensitivity or unique value.

3. To minimize and encourage the removal of sources of pollution and discourage activities or projects inside or outside the Trust area which would reduce the natural and aesthetic values of the area.

4. To encourage gradual and appropriate, rather than rapid, change and growth.

5. To encourage only the selective and careful use of renewable natural resources in ways consistent with the goals and policies.

This paper also provides the following list of policies which assist in the preparation of aquaculture regulations:

1. To protect the marine life and ecology of the Trust waters.

2. To support and encourage conservation measures which maintain and improve fish and shellfish stocks.

3. To support aquaculture which does not significantly interfere with other marine life and which is compatible with recreational activities.

4. To preserve a pollution free environment by following the policies set out in Section 7 (pollution) under the following subsection:

   a) to give the highest priority to a healthful and pleasant environment, avoiding water pollution and;
   b) to prohibit, within the Trust area, industrial or other activities which would create significant water pollution;

c) to ensure that solid waste disposal sites are situated in environmentally and aesthetically acceptable locations, and;
d) to oppose disposal of solid waste in Trust waters.

The following policies, approved at the March 1987 Islands Trust Council meeting, may provide further assistance to local trust committees preparing regulations on this matter:

1. That aquaculture be defined as an "industrial activity" within the Trust area.

2. That the following areas be identified by the local trust committees:**

   a) Areas not suitable for maricultural operations by virtue of their special natural features either on the foreshore, underwater, or on adjacent land.
   b) Areas of recreational significance to the public.
   c) Areas of environmental sensitivity.
   d) Areas of potential upland development conflicts - e.g. residential areas.

3. The local zoning be amended using the information in item 2 above to ensure the rational development of aquaculture in the Trust area.

** With the exception of Howe Sound where there is an indefinite moratorium on Provincial approval of salmon farm leases, this information has now been compiled on salmon farms for the Islands Trust area. The Ministry of Forests and Lands completed a study of the area in July, 1987 to identify areas not suitable for salmon farms and areas where constraints on such developments exist. It is expected that this information will be made available to the Islands Trust,and will greatly assist local trust committees in considering bylaw amendments related to aquaculture.

III. JURISDICTIONAL AUTHORITY OF OTHER GOVERNMENT AGENCIES

Numerous government agencies have regulatory and non-regulatory interests in the development of aquaculture within the Islands Trust area. It is important that the Islands Trust's role with respect to aquaculture developments be placed in the context of Federal and Provincial agencies' responsibilities. Many of the public concerns regarding aquaculture fall within the jurisdiction of other agencies. Ongoing co-operation between the Islands Trust and these agencies will be important if aquaculture developments in the Trust area are located, developed and operated to in a manner consistent with the Trust object.

The following information on the roles and functions of other government agencies was obtained from a paper published by the Ministry of Municipal Affairs and the Ministry of Agriculture and Fisheries, entitled Local Government Planning for Coastal Finfish Aquaculture Development.

"In general terms, these roles are as follows:

- The British Columbia Ministry of Agriculture and Fisheries is the lead agency responsible for development an co-ordination of the provincial aquaculture program.

- The federal Department of Fisheries and Oceans has, as its primary role, the management of the wildstock marine fisheries and the protection of their habitat.

- The Ministry of Forests and Lands (B.C. Lands) is responsible for allocating Crown land, foreshore and water areas. The Crown land allocation process is described in Chapter 6, pages 9 - 11.

- The Ministry of Environment and Parks is responsible for setting and enforcing environmental standards.

- The Ministry of Economic Development has financial assistance programs which facilitate the development of the industry."

The regulatory framework for aquaculture is in a state of rapid evolution in response to the rapid growth of the industry. However, even existing legislation requires a great deal of an aquaculture proponent to commence and continue operation of an aquaculture operation.

Using salmon farming as an example, the following is a sample of what is required of an aquaculturist under Federal and Provincial land use and environmental legislation:

a) Under the *Land Act* (B.C.), tenure over Crown Land (including foreshore and water surfaces) must be obtained from the Ministry of Forests and Lands. Preconditions include compliance with local regulations (as well as compliance with all other Federal and Provincial legislation), approved development plans for the farm, approval of spacing of the farm from other farms and from salmon bearing streams, approval of waste management practices (e.g. disposal of dead fish and waste fish feed and feces). Prior to establishment, a proponent does have opportunity to obtain a one year permit for investigative purposes (growing of fish or site improvements are not permitted).

b) Under the Fish Inspection Acts (B.C. and Canada), fish processing facilities are inspected and are required to remove offal and other solid wastes to a rendering plant daily. These wastes cannot be released into the marine environment. The *B.C. Waste Management Act* regulates the discharge of effluents.

c) Under the *Navigable Waters Act* (Canada), the placement of any structure in the water that may affect navigation or pose a navigation hazard must be approved by the Canadian Coast Guard. Where necessary, navigational buoys, markers and lights are required. The Coast Guard considers all aspects of navigation including anchorage for storm conditions and for summer recreational uses.

d) Under the Fish Health Protection Regulations, *Fisheries Act* (Canada), the *Veterinary Act* (B.C.), and the *Livestock Disease Control Act* (B.C.), general matters of fish health are managed and regulated. For example, farm operators are required to report disease outbreaks in farm fish stocks and the use of drugs on the farm is regulated.

In addition, the Provincial Ministries of Agriculture and Fisheries, and Environment and Parks are working with the Federal Departments of Fisheries and Oceans, and Environment, and the B.C. Salmon Farmers' Association to gather data on the impacts of fish farming on the farmed fish and the environment. It is expected that as research findings becomes available, this will be shared with the Islands Trust, other local governments and the general public.

IV. RECOMMENDED APPROACH

The islands are diverse in coastal conditions and community standards and needs. Similarly, the needs and plans of one aquaculture operator may vary substantially from another. It would be unrealistic, therefore, to expect that one approach and set of regulations for aquaculture would be suitable for all islands. The following approach to the regulation and management of aquaculture may be directly transferable to some island situations but may require substantial amendment to be appropriate for others.

RECOMMENDATION 1 - Objectives and Policies in Official Community Plans

It is recommended that a local trust committee include in its official community plan (or rural land use bylaw), broad objectives and policies on the types and character of aquaculture development within the plan area.

If adequate information is available, it is also recommended that a local trust committee include policy statements regarding criteria for locations which are suitable and unsuitable for aquaculture. This would provide guidance on future uses to both aquaculture developers and the general public.

RECOMMENDATION 2 - Separate Zones for Different Types of Aquaculture

It is recommended that a local trust committee distinguish between fish culture and other forms of aquaculture (ie. molluscs and plants) in the definitions and water zones included in zoning bylaws (or rural land use bylaws). This is recommended because public concerns regarding fish culture are more significant than other forms of aquaculture. Impacts and concerns of the growing of shellfish and marine plants are sufficiently similar that separate zones should not generally be required in the bylaw.

Possible bylaw definitions for "finfish culture" and "mariculture" are as follows: (Note - The definition of mariculture is different from that in general use by the public, since this term is generally understood to include fish culture).

> "**mariculture** means the cultivation, rearing and harvesting of molluscs, crustaceans and marine plants, and specifically excludes

processing of these organisms and finfish cultivating, rearing, harvesting or processing."

"finfish culture means the cultivation, rearing and harvesting or finfish, but specifically excludes bleeding, gutting and processing."

The mariculture and fish culture zones may specify maximum site areas.

Local trust committees should be cautious of including additional regulations which the courts may consider "ultra vires" (not within the Trust's authority) or which are extremely difficult or impossible to enforce. For example, trust committees are advised not to include regulations on numbers of employees or prohibition of nuisances such as excessive noise, odour, dust, light, etc. Inclusion of these regulations may lead to false expectations on the part of residents that the bylaw will protect them in a way it cannot.

RECOMMENDATION 3 - Processing to be Zoned Separately

Residents and property owners on the islands often are more concerned about the impacts of aquaculture processing than aquaculture itself. For this reason, it is recommended that aquaculture processing be excluded from the definitions of mariculture and finfish culture and the permitted uses of mariculture and finfish culture zones of the bylaw. If an appropriate location for processing is identified and a rezoning proposal is made, it is recommended that an "Aquaculture Processing Zone" be established.

RECOMMENDATION 4 - Accessory Uses to be Included in the Mariculture and finfish Culture Zones

Past public hearings on aquaculture proposals in the Islands Trust area indicate that the public does have some concern regarding accessory structures which might be constructed on the water or foreshore in association with aquaculture development. For example, it appears that the inclusion of a dwelling for the owner, operator or employee of an aquaculture operation on the water would not be generally acceptable. Similarly, commercial retail sale operations at the site of the aquaculture development would likely be controversial. Based on input at past public hearings, the following regulations might be appropriate in mariculture and finfish culture zones:

The following structures and no others shall be permitted in all areas designated by this Bylaw as (Zone Name):

(1) Docks, wharves, piers, pens, floats, ramps, signs and other similar structures required to accommodate the needs of the permitted uses.

The following regulations shall apply to every development in all areas designated by this Bylaw as (Zone Name):

(1) Height

No structure shall exceed five (5) metres (16.4 ft.) in height measured from the elevation of the mean high tide.

(2) Buildings Prohibited

No building including a boat house or shelter shall be erected on any float, dock, wharf, pier or similar structure.

(3) Commercial and Industrial Uses Prohibited

No commercial or industrial use shall be permitted on any float, dock, wharf, pier or similar structure located in the (Zone Name) zone.

RECOMMENDATION 5 - Upland Uses Associated with Aquaculture to be Zoned Separately

Aquaculture operators frequently require buildings for storage, office and accommodation uses. These buildings are more visually acceptable to nearby property owners if located in upland areas.** The question of how to zone such upland use arises. Proposals to place upland area in the same zone as the aquaculture operation have generated public concerns that the rearing areas might expand to the land area. It is recommended, therefore, that an "aquaculture upland support services" zone be employed. A possible definition of "aquaculture upland support services" might be:

"aquaculture upland support services" means sheds, buildings, offices, and storage and equipment maintenance areas required to serve an aquaculture operation, including one dwelling of a mariculture or finfish culture operation".

** In some cases, it may not be possible for buildings to be constructed on upland areas (e.g. steep slopes, ownership). In these instances, the local trust committee may decide to amend the bylaw to permit buildings in mariculture or finfish culture zones.

RECOMMENDATION 6 - Aquaculture Sites not be Pre-zoned

It is not recommended that areas be zoned for aquaculture in advance, or receiving development proposals because there would not be sufficient public support for designation without a specific proposal. Instead, it is recommended that proposed aquaculture developments be the subject of a rezoning application.

Public consultation during the process of rezoning, and especially the public hearing, provide the opportunity for communication between the aquaculture operator and adjacent property owners. This communication can ensure that the aquaculture operation which eventually develops is best suited to its surrounding. Hopefully, this will reduce or avoid future conflicts related to impacts such as noise and aesthetics.

It should be noted that the Ministry of Agriculture and Fisheries and the Ministry of Forests and Lands are opposed to any bylaw amendment which places a non-conforming status on aquaculture developments. It is recommended that existing aquaculture developments be recognized in regulatory bylaws.

RECOMMENDATION 7 - Development Permit Areas be Employed for Aquaculture

It is recommended that local trust committees be cautious in designating development permit areas and requiring development permits for aquaculture uses even though siting concerns may be addressed in these permits. It is questionable whether aquaculture is appropriate to the various categories of development permit areas. It is also not clear that these permits provide the flexibility required to address public concerns regarding aquaculture developments.

RECOMMENDATION 8 - Temporary Commercial and Industrial Permits not Recommended at This Time

The designation of temporary commercial and industrial permit areas in official community plans and rural land use bylaws provides a means for setting conditions which may resolve some public concerns regarding aquaculture proposals. However, at this time, it is not recommended that this approach be used for aquaculture development. The term "temporary" may cause potential problems for developers in financial negotiations, and the maximum four year time limit for permits prevents use of these permits for more permanent developments. It is recommended that these

V. SUMMARY

This paper is intended to assist local trust committees in developing an appropriate and effective approach to planning and regulation of aquaculture development.

The paper recognizes that while the islands have much in common, they do vary in coastal characteristics, population densities, community needs and the type of aquaculture development proposed. The specific approach for planning and regulation of these developments may also vary.

The emphasis of the recommendations in the paper is on appropriate zoning regulations for aquaculture. It is noted that permits which are presently available to the Islands Trust do not provide an adequate means for resolving public concerns regarding particular aspects of an aquaculture proposal.

The paper also recognizes that many matters of public concern regarding aquaculture fall within the jurisdiction of Provincial and Federal government agencies, rather than the Islands Trust and that cooperation with these agencies is essential.